

## Consumer group criticizes surgeon general on ECT

James Ciment, New York

Although still in preliminary draft form and yet to be released officially to the public, the long-awaited surgeon general's report on mental health has already created an uproar, after a consumer health group released excerpts highlighting the efficacy and safety of electroconvulsive therapy in the treatment of depression.

According to the draft report, which cites several clinical studies published between 1993 and 1997, electroconvulsive therapy "is regarded as a safe and effective treatment for depression and is recommended for select groups of patients with severe depression, particularly those with associated active suicidal ideation, psychosis or catatonia." Moreover, the draft report says that the therapy "has the advantage over pharmacotherapy of more rapid resolution of symptoms."

Calling the draft a "blanket endorsement" of electroconvulsive therapy, the National Mental Health Consumers' Self Help Clearinghouse, based in Philadelphia, argues that the surgeon general's office overlooked numerous studies that found electroconvulsive therapy to be more dangerous and less effective than pharmaceuticals for the treatment of

severe depression. In a letter to the surgeon general, David Satcher, the Clearinghouse cites numerous studies indicating higher suicide rates for people receiving electroconvulsive therapy compared with those receiving drug treatment, as well as cardiovascular problems, memory loss, and epileptic seizures. In addition, the letter says that the draft report's underestimation of the risks of electroconvulsive therapy means that there is "no opportunity for truly informed consent" as required by law.

The Clearinghouse's executive director, Joseph Rogers, said that his organization released the report because the draft approves of electroconvulsive therapy in such an unqualified way. Calling the report premature and unbalanced, Mr Rogers suspected that both politics and bias were factors in the draft report's uncritical assessment of the therapy. "There was a lot of pressure on the National Institute of Mental Health from the vice president's office," he speculated, "to get this report out after the White House conference [on mental health, held in June]."

In addition, Mr Rogers said, the National Institute's deputy director, Richard Naka-

mura, is "very pro-electroconvulsive therapy, and I think he is looking for the surgeon general's report to give better legitimacy to electroconvulsive therapy and a clearer and more definitive statement on electroconvulsive therapy."

The surgeon general's office refused to comment on the released draft except to say that it was not final and that it was still undergoing a "rigorous review and revision process."

## News brief

New research study to look at link between brain tumors and aspartame  
British researchers are to carry out a 3-year study into the relationship between brain tumors and the artificial sweetener aspartame, marketed as Nutrasweet. The study, based at Kings College, London, will look at the possibility that some people have a genetic predisposition to be more sensitive to aspartame than others. Nutrasweet welcomed the study, saying it hoped it would lay to rest the 'groundless rumors' surrounding aspartame, widely used in low-calorie soft drinks and foods.

## Nerve gas antidote a possible cause of Gulf war illness

Fred Charatan, Florida

A study conducted over 2 years by the Rand Corporation, a non-profit organization financed by the US Department of Defense, suggests that pyridostigmine bromide may cause a number of symptoms affecting more than 100,000 Gulf war veterans. The 385-page report, written by Beatrice Golomb, professor of medicine at the University of California and physician at the Veterans Affairs Medical Center, San Diego, sharply contradicts two earlier studies—by a presidential advisory committee on Gulf war veterans' illnesses and the Institute of Medicine—both of which ruled out the drug as a cause.

Pyridostigmine bromide, used since 1955 to treat myasthenia gravis, was given to 250,000 to 300,000 US troops in a daily dose of 90 mg for a maximum of 7 days in the Gulf war, as a "pretreatment" against potential Iraqi attacks with the nerve gas soman.

The Rand report examined issues surrounding the safety, and to a lesser degree, the effectiveness, of pyridostigmine bromide.

Nerve agents such as soman act by irreversibly binding to and inhibiting the normal action of the enzyme acetylcholinesterase. Acetylcholine is a major neurotransmitter. Acetylcholinesterase breaks down acetylcholine in the synapse; thus the former serves a critical role in regulating nerve signalling. When acetylcholinesterase is inhibited by a nerve agent, an excessive accumulation of acetylcholine occurs in the synapse, followed by excessive binding of acetylcholine to the receptors on the receiving cell. Consequently, cells are overstimulated. This condition leads to an array of possible cholinergic symptoms based on acetylcholine binding to different types of receptors.

Pyridostigmine bromide acts by reversibly binding to and inhibiting acetylcholinesterase

on the site where the nerve agent would bind, thus blocking soman from permanently inactivating acetylcholinesterase. As soman is cleared from the body, the drug spontaneously leaves the enzyme and restores functional acetylcholinesterase.

The report concluded that pyridostigmine bromide cannot be ruled out as a possible contributor to the development of unexplained or undiagnosed illness in some Gulf war veterans. Uncertainties remain about the effectiveness of the drug in protecting people against nerve agents. Bernard Rostker, special assistant for Gulf war illnesses at the Pentagon, said: "We believe this is an important work. It breaks new ground and presents a great deal of information that wasn't available to decision makers during the Gulf war." The report now goes to the Institute of Medicine for final review.